```
Potato type L               835:---YDDLIGSLEGNEGFGRADYFLVGKDFPSYIECQEKVDEAYRDQKRWTTMSILNTAGSY 892
Potato type L2              812:---YEELMGSLEGNEGYGRADYFLVGKDFPDYIECQDKVDEAYRDQKKWTKMSILNTAGSF 869
Sweet potato type L         831:---YDELLGSLEGNEGFGRGDYFLVGKDFPSYIECQEKVDEAYRDQKIWTRMSILNTAGSY 888
Fava bean type L            858:---YDELIGSLEGNEGFGRADYFLVGQDFPSYLECQEEVDKAYRDQKKWTRMSILNTAGSS 915
Arabidopsis thaliana type L 881:---YDELIGSLEGNEGFGRADYFLVGKDFPSYIECQEKVDEAYRDQKRWTRMSIMNTAGSF 938
Spinach                     890:---YDELLGSLEGNEGFGRADYFLVGKDFPSYVECQEQVDQAYRDQQKWTRMSILNTAGSF 947
Rice type L                 847:---YDDLMGSLEGNEGYGRADYFLVGKDFPSYIECQEKVDKAYRDQKLWTRMSILNTASSS 904
Rice type L2                870:---YDDLMGSLEGNEGYGRADYFLVGKDFPSYIECQEKVDKAYRDQKLWTRMSILNTASSS 927
Corn type L                 902:---YDELMGSLEGNEGYGRADYFLVGKDFPSYIECQEKVDEAYRDQKLWTRMSILNTASSS 959
Potato type H               757:---YNPLLESLEGNSGYGRGDYFLVGHDFPSYMDAQARVDEAYKDRKRWIKMSILSTSGSG 814
Fava bean type H            761:---YNPLLDSLEGNSGYGRGDYFLVGYDFPSYMDAQEKVDEAYRDKKRWLKMSILSTAGSG 818
Arabidopsis thaliana type H 760:---YGPLLDSLEGNTGFGRGDYFLVGYDFPSYMDAQAKVDEAYKDRKGWLKMSILSTAGSG 817
Rice type H                 760:---YAPLLDSLEGNSGFGRGDYFLVGYDFPSYIDAQAQVDEAYKDKKKWIKMSILNTAGSG 817
Wheat                       751:---YTPLLDSLEGNTGFGRGDYFLVGYDFPSYIDAQARVDEAYKDKKKWVKMSILNTAGSG 808
Citrus type H               759:---YNPLLDSLEGNTGYGRGDYFLVGYDFPSYLEAQDRVDQAYKDRKKWLKMSILSTAGSG 816
E.coli MalQ                 722:HAFDQMLHSIGKQGG-DP---YLVMA-DFAAYVEAQKQVDVLYRDQEAWTRAAILNTARCG 777
```

```
Potato type L               893:KFSSDRTIHEYAKDIW--NIEAVEIA          916   (SEQ ID NO:2)
Potato type L2              870:KFSSDRTIHQYARDIW--RIEPVELP          893   (SEQ ID NO:6)
Sweet potato type L         889:KFSSDRTIHEYAKDIW--NIQPVVFP          912   (SEQ ID NO:4)
Fava bean type L            916:KFSSDRTIHEYAREIW--NIEPVKLE          939   (SEQ ID NO:8)
Arabidopsis thaliana type L 939:KFSSDRTIHEYAKDIW--NIKQVELP          962   (SEQ ID NO:10)
Spinach                     948:KFSSDRTIHQYAKDIW--NIHPVNLP          971   (SEQ ID NO:12)
Rice type L                 905:KFNSDRTIHEYAKDIW---DIKPVIILP        928   (SEQ ID NO:16)
Rice type L2                928:KFNSDRTIHEYAKDIW---DIKPVILP         951   (SEQ ID NO:18)
Corn type L                 960:KFSSDRTIHEYAKDIW---DISPAILP         983   (SEQ ID NO:14)
Potato type H               815:KFSSDRTISQYAKEIW--NIAECRVP          838   (SEQ ID NO:30)
Fava bean type H            819:KFSSDRTIAQYAKEIW--NIEECRVP          842   (SEQ ID NO:26)
Arabidopsis thaliana type H 818:KFSSDRTIAQYAKEIW--NIEACPVP          841   (SEQ ID NO:28)
Rice type H                 818:KFSSDRTIAQYAKEIW--GITASPVS          841   (SEQ ID NO:24)
Wheat                       809:KFSSDRTIDQYAKEIW--GISACPVP          832   (SEQ ID NO:20)
Citrus type H               817:KFSSDRTIAQYAKEIW--NITECRTS          840   (SEQ ID NO:22)
E.coli MalQ                 778:MFSSDRSIRDYQARIWQAKR-------          797   (SEQ ID NO:35)
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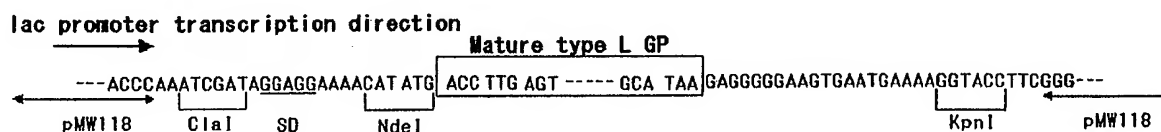
Fig. 1I

lac promoter transcription direction

Mature type L GP

```
---ACCCAAATCGATAGGAGGAAAACAT ATG| ACC TTG AGT ----- GCA TAA |GAGGGGGAAGTGAATGAAAAGGTACCTTCGGG---
   pMW118    ClaI    SD     NdeI                                              KpnI      pMW118
```

Fig. 2